AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please cancel claims 8-13 without prejudice or disclaimer as to the subject matter thereof.

Listing of Claims:

1. (currently amended) A system comprising:
at least one implantable medical device ("IMD") providing therapy delivery, said IMD including a processor controlling the delivery of therapy to a patient; and
an external sensor module having at least one physiological sensor adapted to operatively couple to a surface portion of a peripheral limb of the patient and operational to continuously collect physiological data of the patient~~; and~~ wherein said external sensor module continuously transmits ~~ting~~ the continuously collected physiological data ~~signals~~ to the IMD;
wherein said IMD processor processes ~~ing~~ the physiological data to produce therapy delivery control signals in implementation of dynamic, closed-loop self-monitoring therapy delivery.

2. (currently amended) The system of claim 1 wherein said at least one IMD comprises ~~selected from the group consisting of~~ a pacemaker~~, a defibrillator, a drug pump, and a neurological stimulator~~.

3. (previously amended) The system of claim 1 wherein said external sensor module is selected from the group consisting of: a wristwatch, a ring, a patch, ~~and~~ a sock.

4. (previously amended) The system of claim 1 wherein said external sensor module transmits the~~collected~~ physiological data ~~signals~~ to the IMD over a communication channel including RF signals.

5. (previously amended) The system of claim 1 wherein said physiological sensor is one selected from the group consisting of: a pressure sensor, an oxygen saturation sensor, a cardiac acceleration sensor, a flow sensoring, a heart auscultation sensor, and ~~intracardiac~~ transthoracic impedance sensor.

6.-13. (canceled)

14. (new) A method, comprising:

providing therapy delivery using at least one implantable medical device ("IMD"), said IMD including a processor controlling the delivery of therapy to a patient; and

continuously collecting physiological data of the patient using an external sensor module having at least one physiological sensor;

continuously transmitting the physiological data from said external sensor module to the IMD; and

processing the physiological data to produce one or more therapy delivery control signals in a dynamic, closed-loop, self-monitoring therapy delivery regime.

15. (new) A method according to claim 14, wherein said at least one IMD comprises a pacemaker.

16. (new) A method according to claim 14, wherein said external sensor module comprises at least a one of: a wristwatch, a ring, a patch, a sock.

17. (new) A method according to claim 14, wherein said external sensor module transmits the physiological data to the IMD over a communication channel including RF signals.

18. (new) A method according to claim 14, wherein said at least one physiological sensor comprises a one of: a pressure sensor, an oxygen saturation sensor, a cardiac acceleration sensor, a flow sensor, a heart auscultation sensor, a transthoracic impedance sensing apparatus.

19. (currently amended) A computer readable medium for storing instructions for performing a method, comprising:

instructions for delivering a therapy via at least one implantable medical device ("IMD"), said IMD including a processor controlling the delivery of therapy to a patient;

instructions for automatically collecting physiological data of the patient using an external sensor module having at least one physiological sensor;

instructions for continuously transmitting the collected physiological data from said external sensor module to the IMD; and

instructions for processing the collected physiological data to produce one or more therapy delivery control signals in a dynamic, closed-loop, self-monitoring therapy delivery regime.

20. (new) A system according to claim 1, wherein said IMD comprises at least one of the group: a defibrillator, a drug pump, a neurological stimulator, a deep brain stimulator, a cochlear assist device.

21. (new) A system according to claim 1, wherein the at least one physiologic sensor comprises at least two of the group: a piezoelectric sensor, an LED-based sensor, a surface conductivity sensor, a vibratory sensor, a pressure sensor, an oxygen saturation sensor, an impedance sensor.

22. (new) A system according to claim 21, further comprising a switching means for alternating the respective operating cycles of the at least two sensors to reduce operating interference between said at least two sensors.

23. (new) A system according to claim 21, further comprising a sensor interface disposed adjacent each of the at least two sensors, wherein said sensor interface comprises one of the group: a gel material, a fluid material, an adhesive material, a rubber material, a foam material.

24. (new) A system according to claim 21, wherein one of the at least two sensors is adapted to couple continuously around the peripheral limb of the patient.